Specification:

The specification was amended to insert a US Patent Application No. in place of an attorney docket number.

Rejections Under 35 USC 112:

Claim 1 was rejected because the term "modified queue weights" is vague and indefinite. In response, claim 1 has been amended to claim the fact that the bandwidth allocation adaptor receives queue weights and outputs *modified* queue weights based on the queue weights, the channel quality information, and the preemption values. Since queue weights are mentioned earlier in the claim, the term *modified* queue weights simply means that the original queue weights have been modified based on the channel quality information, and the preemption values.

Claim 4 was rejected because the term "the channel quality information" had no antecedent basis. Claim 4 has been amended to correct this.

Claim 5 was rejected because the term "the set of preemption values" had no antecedent bases. Analysis of claim 5 reveals that the term "a set of preemption values" was mentioned earlier in the claim, therefore the term "the set of preemption values" has been amended to correct proper antecedent basis.

Claim 9 was rejected because the term "the channel conditions" had no antecedent basis. Since the first step of claim 9 specifically claimed "receiving channel conditions", the later mention of "the channel conditions" is proper.

Claim 12 was rejected because the term "the original queue weights" had no antecedent basis. Again, since the first step of claim 12 specifically claimed "original queue weights", the later mention of "the original queue weights" is proper.

Rejections Under 35 USC 102:

As mentioned in the Applicants' specification, in many emerging networks, such as those supporting mission critical applications, it is necessary to protect the QoS of mission critical data flows against variation of network conditions caused by, for example, a poor over-the-air channel. In order to address this issue original queue weights **(B)** are modified by a bandwidth allocation adaptor. The modification of the original queue weights is based, in part, on channel quality information or a channel quality vector.

Claims 4, and 6-10 were rejected under 35 USC 102(b) as being anticipated by Giroux et al. (US6317416). Analysis of Giroux reveals that Giroux modifies queue weights based on a rate of growth of the queue (queue growth rate). The Examiner equates the queue growth rate to the Applicants' claimed "channel quality information". In response, the Applicants have amended these claims to specifically claim the fact that queue weights are based on a channel quality vector, where the channel quality vector comprises a plurality of effective link rates, each link rate associated with a shared channel from a source station to one of a plurality of destination stations in a shared medium network and determined by accounting for loss in throughput due to error losses in the shared channel.

As is plainly evident, a "queue growth rate" is in no way equated with a plurality of effective link rates, each link rate associated with a shared channel from a source station to one of a plurality of destination stations in a shared medium network and determined by accounting for loss in throughput due to error losses in the shared channel. Because of this, claims 4-8 are allowable over the prior art of record.

Regarding claims 9-10, again the Examiner equates a "queue growth rate" to channel conditions. Because of this, claim 9 was amended to include the limitation that queue weights are calculated based on a channel quality vector. The channel quality vector comprises a plurality of effective link rates, each link rate associated with a shared channel from a source station to one of a plurality of destination stations in a shared medium network and determined by accounting for loss in throughput due to error losses in the shared channel. Since Giroux fails to teach or otherwise suggest that queue weights are calculated based on a channel quality vector, claims 9-10 are allowable over the prior art of record.

Claim Rejections Under 35 USC 103(a):

Claims 1-3, 5, and 11-14 were rejected under 35 USC 103(a) as being unpatentable over Giroux in view of Firoiu et al (US6820128). In rejecting both independent claims 1 and 13, the Examiner equates channel quality information and channel conditions with a "queue growth rate". Because of this, independent claims 1 and 13 were amended. Particularly, claim 1 was amended to include the limitation that the channel quality information comprises a plurality of effective link rates, each link rate associated with a shared channel from a source station to one of a plurality of destination stations in a shared medium network and determined by accounting for loss in throughput due to error losses in the shared channel. Since the prior art fails to teach or otherwise suggest that queue weights are based on channel quality information, claim 1 is allowable over the prior art of record.

Regarding independent claim 13, this claim was amended to include the limitation that queue weights are calculated based on a channel quality vector, where the channel quality vector comprises a plurality of effective link rates, each link rate associated with a shared channel from a source station to one of a plurality of destination stations in a shared medium network and determined by accounting for loss in throughput due to error losses in the shared channel. Since neither reference (alone or in combination) teach this limitation, claim 13 is allowable over the prior art of record.

Regarding all other claims; since these claims depend from allowable base claims, all other claims are allowable over the prior art of record.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references. As the Applicant has overcome all substantive rejections given by the Examiner the Applicant contends that this Amendment, with the above discussion, overcomes the Examiner's rejections to the pending claims. Therefore, the Applicant respectfully requests allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter. Finally, please charge any fees (including extension of time fees) or credit overpayment to Deposit Account No. 502117.

Respectfully Submitted,
Bansal, ET AL.

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